

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

In the Matter of)	
)	
Revision of the Commission's Rules)	CC Docket No. 94-102
To Ensure Compatibility With Enhanced)	RM-8143
911 Emergency Calling Systems)	

**REPLY COMMENTS OF THE
CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION**

The Cellular Telecommunications & Internet Association ("CTIA")¹ hereby submits its Reply Comments in response to the above captioned proceeding.² As CTIA stated in its Comments, nothing has changed from the Commission's prior inquiries into this matter, except there now are new handsets—designed and marketed in response to the rules promulgated in this docket—that are physically incapable of receiving callback from Public Safety Answering Points ("PSAPs") no matter what changes might be made to carriers' networks. Moreover, the record with respect to carriers' networks has not changed: the technical obstacles to providing callback

¹ CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

² Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102; RM-8143, *Further Notice of Proposed Rulemaking*, FCC 01-175 (rel. May 25, 2001) ("Further Notice").

(as well as the enhanced features of Phase I and Phase II E9-1-1) to non-subscribed handsets³ still persist, and no commenter has raised a practical technical solution for providing call back functionality. Furthermore, there has been no demonstration that the cost of a solution would be commensurate with the public safety benefits that may be realized. The reason for this should be self-evident – wireless carriers’ networks have been engineered to complete calls to subscribers, each of whom is identified with a unique Mobile Identification Number (a “MIN” or “IMSI”) that not only identifies the handset, but also identifies the carrier associated with the caller and the information needed to route a call from the Public Switched Network (“PSTN”) to the caller.

As CTIA stated in its Comments, the Wireless Consumers Alliance (“WCA”) is mistaken in its belief that the Wireless E 911 Implementation Ad Hoc (“WEIAD”) group “agreed that the call back solution proposed by the WCA was feasible.”⁴ In fact, there was no such agreement, and no agreement is recorded in the Callback Working Group Report to the WEIAD cited by the Alliance in its comments.⁵ Indeed, one year after the report cited by the WCA, the WEIAD informed the Commission that with respect to efforts to solve the problems of callback to non-

³ The Further Notice refers to “non-service-initialized” or “noninitialized” handsets. Since the majority of these phones have been “initialized”, i.e., the handset has been programmed to transmit a Mobile Identification Number (a “MIN” or “IMSI”), the term “unsubscribed” more accurately describes these phones. In its Comments, CTIA explained that previously initialized phones present a bigger problem than phones that have never been initialized because they are likely to transmit a MIN or IMSI used by a subscriber.

⁴ See Further Notice at ¶ 5; Comments of the Wireless Consumers Alliance, Inc., at 2 (filed June 19, 2000) to the Request for Further Consideration of Call Back Number Issues, CC Docket No. 94-102, WT Docket No. 00-80.

⁵ See Callback Working Group Report to the WEIAD, attached as Appendix B of the Report of CTIA, PCIA, APCO, NENA, NASNA, ALLIANCE, CC Docket 94-102 (filed Jan. 30, 1998).

subscribed handsets, “[t]he technical impediments that forced the policy choice of forwarding all calls ... have not yet been overcome.”⁶

Another solution proposed by WCA, involving Temporary Local Directory Numbers (“TLDNs”),⁷ was considered and soundly rejected by Telecommunications Industry Association (“TIA”).⁸ As CTIA explained in its Comments, WCA’s proposal was dismissed, among other reasons, because the use of TLDNs in callback to non-subscribed phones will not work if the TLDN is reassigned. TLDNs were designed, and are intended to facilitate, call set-up, not callback from the PSTN. The use of TLDNs for callback also is inconsistent with the Commission’s number conservation efforts since a unique number would have to be assigned for every possible, simultaneous, non-service initialized call made in every market. Furthermore, the implementation of wireless local number portability will make callback to a non-subscribed phone even more difficult. Finally, TLDN-callback is not possible if the non-subscribed phone moves outside the coverage area of the system where the emergency call was made, or registers on a different carrier’s network.

Despite these flaws, WCA insists that its proposal, which references a pair of patents,⁹ will permit wireless carriers to provide call back functionality to users of non-subscribed

⁶ Report of CTIA, PCIA, APCO, NENA, NASNA, ALLIANCE, CC Docket 94-102 (filed Feb. 1, 1999), at 7.

⁷ See Further Notice at ¶ 8.

⁸ See Cellular Networking Perspectives, Vol. 10, June 2001 at 2.

⁹ Comments of the Wireless Consumers Alliance, Inc., CC Docket No. 94-102 (July 9, 2001) (“WCA Comments”) (*citing* Call-back method in response to emergency call originating from cellular radiotelephone, U.S. Patents 5,937,344 and 6,038,437.).

handsets. CTIA, joins the WCA, and urges the Commission to read these patents.¹⁰ As is well known, a patent describes an idea, not a solution or a product. The patents referenced by WCA do not address the unique problems raised by callback routed over the PSTN to unsubscribed wireless phones in a multi-carrier environment. Nor do the patents address callback to handsets that lack a unique identifying number, or the ability to receive calls.

The two patents address the relatively simple situation of two cellular networks (the “A” and “B” band carriers) and assume that callers are either roaming customers, or are in a “strongest signal” situation where a subscribed handset accesses a PSAP over the cellular carrier that is not the carrier associated with the customer’s account. In either instance, the caller has a unique MIN. Not only do the patents fail to address callback to a handset with a non-unique MIN (where callback may be directed to a subscriber rather than to the non-subscriber), the methodology described in the patents does not address the complexity of the current competitive environment where multiple carriers provide cellular, PCS, and ESMR services in the same market. Just as the Commission was unable to extrapolate the so-called “strongest signal” proposal to PCS and ESMR services, the patents offer no solution to the reality of today’s multi-carrier markets.

Like every other proposal, the WCA fails to address the 9-1-1- only handsets, such as the Magnavox Mobile 911, and handsets that have never been service-initialized, i.e., handsets that are programmed with a common non-dialable number.¹¹ A growing number of products are

¹⁰ See WCA Comments at 3.

¹¹ The Magnavox Mobile 911 was neither designed nor marketed to do anything more than dial 9-1-1. See “*Why pay for cellular phone service if you need it only for emergencies?*” The New York Times Magazine, March 12, 2000, p. 70.

being developed that are specifically designed to dial 9-1-1, and only 9-1-1, without being activated by a carrier.¹²

WCA claims that once a minor change in switch software is made, a PSAP will be able to call the non-subscriber phone back through a patented callback technology. The patents purport “to increase the probability of a rapid and successful callback” by routing a callback through both the “A” and “B” band carriers.¹³ Even if the callback from the PSAP was attempted simultaneously over all the wireless carrier networks in a market (i.e., over as many as five or six networks and not just the cellular “A” and “B” band carriers described in the patents), the technology does not address how a wireless carrier’s switch would identify the callback from the PSAP so the call can be delivered to the unsubscribed phone.¹⁴ As the Commission is aware, 9-1-1 calls from carriers to PSAPs are routed over a dedicated network of selective routers and one-way inbound trunks. Ordinarily, an outbound call from a PSAP (i.e., a callback) will be routed over the PSTN to the carrier serving the caller. Since the PSAP callback is routed to a carrier over the same trunks as all other PSTN calls, the switch will treat the callback just like any other call. Such calls will not be completed because carriers’ networks (both wireless and

¹² See “Talk is Cheap. But is it Disposable? Putting the Phone Card in the Phone, Companies Bet on Devices You Can Buy, Dial and Toss.” The New York Times, Aug. 2, 2001. Several companies are currently developing disposable phone models, such as the Phone-Card-Phone, to be sold as early as this fall. The semi-disposable Airlip phone has no display or keypad, only an on-off button and a 9-1-1 emergency button. None of these disposable phones will require a service contract as conventional wireless phones do.

¹³ U.S. Patent 5,937,344 at 6.

¹⁴ Since GSM-based wireless networks do not use IS-41 architecture, the callback method described in the patents will not apply to all wireless calls. Of course, PSAP equipment could be modified to initiate simultaneous callback attempts to multiple carriers, but this is not a capability supported by legacy PSAP equipment, and would require the PSAPs to maintain sufficient trunking capacity to support simultaneous call attempts.

wireline) are not designed to complete calls to a user whose number is not registered with the carrier. Thus, a major shortcoming associated with the TLDN solution remains—the public switched network is unable to route such calls to the proper carrier. WCA has offered no new solution that would provide call back functionality to users of unsubscribed handsets.

In addition to the WCA's proposal, another proposal, called "System Beta," was described in Comments filed by Richard Levine as providing a solution that will support callback to unsubscribed phones.¹⁵ Mr. Levine claims that his proposal is technically feasible and cost-effective.¹⁶ As the Commission knows from its oversight of the North American Numbering Council ("NANC"), "System Beta" previously has been proposed to the NANC and failed to gain the support of a single member.¹⁷ Among other reasons, the "System Beta" proposal was rejected because the implementation path was too costly and complex. A major concern was the additional number of translations "System Beta" requires, and the inability of the current PSTN

¹⁵ Comments of Richard Levine (Beta Scientific Laboratory, Inc.), CC Docket No. 94-102 (July 9, 2001) ("Levine Comments")

¹⁶ The costs of deploying "System Beta" are not clear since Mr. Levine did not disclose in his comments his terms for licensing this technology and providing the necessary equipment. Also, as discussed below, adoption of "System Beta" will impose unacceptable costs to the PSTN.

¹⁷ In November 1998, Mr. Levine presented an overview of "System Beta" to the NANC. After being reviewed by the NANC, it was determined that considerable time should not be spent on Levine's proposal until the ATIS-sponsored Technical Committee T1S1 completed its review. The NANC concluded that the complexity of the system from a user standpoint was a factor that should not be overlooked. Additionally, the implementation path was perceived to be overly complicated and expensive. The ATIS Committee T1S1 had several visits from Mr. Levine; however, several issues associated with translations were never resolved. See ATIS T1S1 Report 3 Network Capability SubGroup, DOC#: T1S1.3/99-021[04603] (Apr. 12, 1999), available at <<http://www.t1.org/index/0705.htm>> ("ATIS Report"). In addition, Mr. Levine was unable to gain support for the "System Beta" proposal at the Industry Numbering Committee ("INC") or the IEEE. Indeed, CTIA is not aware of any industry forum that has accepted "System Beta" in over three years of technical review.

to process calls under this system. Based upon the findings of a working group associated with the Alliance for Telecommunications Industry Solutions, “there was consensus that there [were] significant unresolved issues, e.g., undesirable interactions with Automatic Call Back.”¹⁸

Despite this widespread rejection of “System Beta,” the Independent Cellular Services Association (“ICSA”) believes that “simple programming changes to the infrastru^cter [sic] will permit callback.”¹⁹ Furthermore, ICSA claims to “favor Dr. Richard Levine’s of Beta Scientific Laboratory, Inc. Pseudonumber MIN which does not draw from the scarce North American number pool of area codes.”²⁰ Such statements are unfounded and oversimplified. The Commission should reject these proposals since no party has offered a viable technical solution that would permit carriers to provide call back functionality to users of unsubscribed handsets.

As CTIA stated in its Comments, before adopting additional E9-1-1 regulations, the Commission must ascertain the extent that unsubscribed handsets are utilized to dial 9-1-1 and whether the costs of making callback available are commensurate with the benefits. No party has demonstrated that there is a problem sufficiently extensive to warrant further regulation. There is no evidence that a callback requirement for unsubscribed handsets would achieve significant improvements in public safety without imposing unreasonable costs on wireless carriers, PSAPs, and the PSTN, as well as diverting resources from other services, such as E9-1-1 Phase II. Moreover, no network-based solution will address the policy issues presented by the proliferation of new handsets designed to originate, but not receive, wireless calls.

¹⁸ See ATIS Report at 99-012 [04601].

¹⁹ See Comments of the Independent Cellular Services Association, CC Docket No. 94-102 (July 9, 2001) (“ICSA Comments”) at 8.

²⁰ Id. at 8.

CTIA urges the Commission to take the lead in working with the public safety community and the wireless industry to address the legitimate concerns over callback capability through education and training. In this regard, CTIA respectfully submits that the Commission, having mandated 9-1-1 call completion for all phones, has a duty to advise the public of the safety benefits associated with the use of service-activated handsets to call 9-1-1. For these reasons, CTIA respectfully requests that the Commission refrain from imposing additional requirements and address this issue through education and training in accordance with the recommendations made by CTIA and its members in their Comments and in these Reply Comments.

Respectfully submitted,

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